

REMARKS

Claims 1-20 are currently pending.

Allowable Subject Matter

The Office has allowed claims 6-20. Applicants thank the Office for the indication of allowable subject matter. These claims are unchanged and remain in condition for allowance.

The § 101 Rejections

Claims 1-5 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Specifically, the Office argues that claim 1 is not limited to tangible embodiments and does not have any tangible result.

Applicants respectfully submit that claims 1-5 are directed to statutory subject matter. In particular, claim 1 recites a process for managing, in an interrupt stage, a memory stack associated with a microcontroller, having a number of interrupts, according to a Program Counter signal and to a Condition Code Register signal that includes bits, that can be contained in respective registers. The process includes the operations of:

providing a first part of memory stack, comprising a register for said Program Counter signal, and a second part of memory stack, made up of a bank of memory elements equal in number to the bits of said Condition Code Register signal times the number of interrupts of the microcontroller; and

causing said two parts of memory stack to function in parallel by employing respective stack-pointer signals.

First, the process of claim 1 is limited to tangible embodiments because it is limited to a practical application in the technological arts. Specifically, it provides a process for managing, in an interrupt stage, a memory stack associated with a microcontroller. According to MPEP § 2106, "only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101 Further, when such a rejection is made, Office personnel must expressly state how the language of the claims has been

interpreted to support the rejection.” The Examiner has provided no statement of how the language of claims 1-5 have been interpreted to support the rejection. Furthermore, Applicants respectfully submit that memory management is an important concern in the computer-related arts and therefore the claimed process is an eminently practical application of an inventive memory management technique.

Second, Applicants respectfully submit that the Examiner has not established a prima facie case of non-statutory subject matter under the correct standards. As noted on page 21 of the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, (<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>), the Examiner must first determine whether the claimed invention is directed to a judicial exception to patentable subject matter, such as a law of nature, natural phenomena, or abstract idea. The Examiner has not argued that the claimed invention is one of those judicial exceptions or any other judicial exception. In fact, the Examiner has provided only his conclusion that the claimed process does not produce any tangible result without providing any argument to support the Examiner’s conclusion. Applicants submit that the claimed process could not be shown to fall into one of the judicial exceptions because a process for managing a memory stack associated with a microcontroller is not a law of nature, a natural phenomenon, or an abstract idea.

The Examiner incorrectly determined that the claimed invention does not provide a tangible result. First, the “useful, concrete, and tangible result” standard is only applicable if the Examiner first establishes that the claimed invention is directed to one of the judicial exceptions to statutory subject matter (See page 9 of Interim Guidelines). As noted above, the Examiner has not established that the claimed invention is directed to one of the judicial exceptions, and thus, the “useful, concrete, and tangible result” standard is immaterial. Second, the claimed subject matter *does* provide a useful, concrete and tangible result. Namely, the claimed process provides first and second parts of a memory stack and causes the two parts of the memory stack to function in parallel by employing respective stack-pointer signals. As such, the claimed process is highly useful and provides a real-world result that is certainly repeatable (see pages 10-11 of Interim Guidelines).

For the foregoing reasons, claim 1 is directed to statutory subject matter.

Claims 2-5 depend from claim 1 and thus are also directed to statutory subject matter. In addition, each of claims 2-5 recites additional features that are particular aspects of the practical application of the invention. For example, with respect to claim 3, the operations of generating three signals in order to drive the two parts of the stack are part of a specific practical application of managing a memory stack associated with a microcontroller. Accordingly, claims 2-5 are further directed to statutory subject matter within the meaning of Section 101.

Conclusion

Applicant respectfully submits that all pending claims are in condition for allowance. Accordingly, Applicant requests that a Notice of Allowance be issued. If the Office's next anticipated action is to be anything other than a Notice of Allowance, Applicant requests that the undersigned be contacted for scheduling a telephone interview.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,
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